*Ripples* is the quartlerly newsletter of the Australian Platypus Conservancy. It provides updates on research in progress and other APC news. Members of *Friends of the Platypus* automatically receive each edition of *Ripples.*


# *Ripples*

**Newsletter of the *AUSTRALIAN PLATYPUS CONSERVANCY***

**Issue 19 Winter 2001**


## PLATYPUS IN THE BARWON

The Barwon River arises on the slopes of the Otway and Great Dividing Ranges in southern Victoria and flows through the city of Geelong before emptying into Bass Strait at Barwon Heads. Graziers began settling this catchment shortly after Europeans arrived in Victoria in 1835. Today, much of the basin continues to be devoted to the production of sheep, dairy and beef cattle, and a variety of grains and other crops.

Earlier this year, the APC undertook platypus surveys along four representative sections of the Barwon (each measuring 7.5-20 km in length), distributed between the town of Birregurra and the outskirts of Geelong. The work was commissioned by the Corangamite Catchment Management Authority, and aimed to provide information needed to develop a River Health Strategy for the area. To sample platypus effectively, nets were monitored carefully throughout the night at four to eight sites within each survey area. After being measured and micro-chipped (for permanent identification), animals were released back to the wild at the exact site where they had been captured.

The good news was that reasonable numbers of platypus were recorded in each of the four survey areas. Furthermore, a juvenile male was encountered in February at a site located near the outskirts of Greater Geelong, suggesting that breeding occurs successfully to at least the upstream edge of the city. On a less positive note, platypus were not captured at more than one-third of the sites where nets were set, with fewer animals apparently living both in the uppermost survey area (around Birregurra) and the lowermost area (between Fyansford and Gnarwarre) as compared to the river's middle reaches near Winchelsea and Inverleigh.

There is no way to know precisely how many platypus lived along the Barwon in the early 1800's. However, a number of factors are likely to have reduced the river's productivity in the past 150 years, including a decline in the numbers of native gum trees and shrubs growing on the banks, the proliferation of gorse and willows, increased rates of bank and channel erosion, inputs of salt and other pollutants from a variety of sources, and reduced summer flows.

In addition, there is good reason to believe that platypus populations along the Barwon River are being damaged by encounters with rubbish left along the waterway-three of the 32 animals captured in January and February had deep cuts or badly worn areas of fur around the neck or chest, evidently due to their protracted entanglement in loops of a tough material like nylon fishing line.

Fortunately, there is demonstrably strong community support for conserving platypus along the Barwon, with about a hundred local residents choosing to meet APC biologists at dawn after

survey sessions in order to learn more about the animals and see a platypus being released back to the wild.

The Corangamite CMA is using the platypus survey results (along with several other useful measures of riverine health) to assess how well the Barwon is faring and decide which conservation actions will most effectively address environmental concerns and strengthen the river's habitat values.

As importantly, the baseline platypus data generated by this year's survey program provides an objective benchmark to help monitor the changing health of the Barwon River in the future.

## *Did You Know That....*

***About half (30-60%) of a platypus's total body fat is stored in its tail. The fat helps to insulate the tail (which is thinly furred as compared to the rest of the body) when an animal is active in cold water.***

***Researchers can get a good idea of how fat a platypus is by examining the shape of the tail and gently squeezing its edges: the tail of a very fat animal will be rounded in cross-section and cannot be bent inwards, while a thin platypus will have a strap-like tail that can be folded along the midline.***

## FIRST PLATYPUS FOUND IN RUFFEY CREEK

Ruffey Creek is a highly urbanised waterway flowing through the eastern Melbourne suburbs of Doncaster and Lower Templestowe.

APC biologists were not particularly surprised to find that no platypus were recorded along Ruffey Creek in 1996, when surveys were first carried out as part of Melbourne Water's Urban Platypus Program. The scope of habitat change along the creek was underscored by the presence of a stolen car at one survey site, driven down the stream banks on the night before nets were set.

In May 2001, researchers again set nets along Ruffey Creek as part of the routine platypus population monitoring which takes place along Melbourne's waterways.

This time, they were delighted to encounter no fewer than three animals: one adult (or possibly subadult) female was captured about 50 metres above the point where Ruffey Creek joins the Yarra River, while two males (one adult and one juvenile) were recorded at a site located about 1.3 kilometres farther upstream. The adult male was travelling downstream when he entered the net, several hours after midnight-suggesting that he may have moved a kilometre or more before he was caught.

Ruffey Creek is the third waterway in the Melbourne metropolitan region (along with Diamond Creek and Mullum Mullum Creek) where platypus appear to have expanded their range in the last few years.

Importantly, in all three cases platypus have been recorded for the first time in or near sections of creek where extensive channel stabilisation works-mainly undertaken to control erosion

caused by storm water runoff from roofs and other hard surfaces-were implemented in the previous year by Melbourne Water.

This pattern suggests that there is a causal link between stabilisation works and improved stream productivity, which in turn promotes increased usage by platypus.

It is not surprising that platypus are quite a sensitive indicator of changing conditions along a waterway, given that they depend on the presence of large populations of smaller aquatic organisms (such as insects, worms, snails, shrimps and yabbies) to serve as their dinner.

Because platypus are highly mobile animals-quite capable of moving several kilometres in a single night as they search for food or (in the case of adult males) mates-it also makes sense that they quickly occupy any vacant habitat that becomes available.

## NEW PLATYPUS BOOK

Ann Moyal, member of *Friends of the Platypus* and a well-known historian of Australian science, has written a new book: "Platypus-the Extraordinary Story of How a Curious Creature Baffled the World".

It tells the fascinating story of how scientists gradually unraveled some of the mysteries surrounding this most enigmatic of animal species. Published by Allen & Unwin, the book is widely available from good bookshops.

## THANKS TO VOLUNTEERS

Every type of job has its good points and bad points.

Those aspiring to undertake platypus field work can look forward to a lot of long nights, murky water, tangled nets, and slippery mud.

On the other hand, there are few things more interesting than learning to see the world from the perspective of another species; the dawns are beautiful; and it is very special to meet the huge range of people who care about Australia's wildlife in general and the platypus in particular.

More than a hundred such individuals have put their feelings into practice over the past nine months by helping out as volunteers with APC live-trapping surveys.

A look at the rosters reveals that about half of these volunteers either belong to *Friends of the Platypus* or live in the district where the work was being undertaken.

About a third were secondary students, tertiary students, or young people engaged in special environmental training programs.

As well, a large number of volunteers were drawn from the ranks of management agencies or local government, including Melbourne Water, VicRoads, and several Catchment Management Authorities and city councils.

Besides providing practical (and much appreciated) assistance with setting and checking nets, we hope that the experience of working on behalf of platypus conservation has given APC

volunteers a better understanding of these very special animals.

## SPONSOR A PLATYPUS

Since 1995, the *Friends of the Platypus* organisation has provided the main avenue for community support of the APC's work. Details of how to join the *Friends* can be found on page 4. However, there has also been strong interest from people wishing to sponsor an individual platypus identified through the Conservancy's research and conservation programs. Accordingly, the APC has now established a platypus sponsorship scheme which initially involves four different animals:

**Lucky** was a small juvenile when found with a metal band stuck around his neck. Fortunately, APC researchers were able to cut through and remove this item, which would have eventually strangled him. Later surveys have confirmed him alive and well after his lucky escape.
**Little Notch** is a female platypus recognisable from the small notch in her upper bill, possibly caused by the sharp pincers of a freshwater crayfish. She is one of several animals who have been handled many times during ongoing research along Jack's Creek, near the APC's base at Toorourrong Reservoir Park.
**Double Trouble** was rescued as a juvenile from the jaws of a dog. Unfortunately, the rescuer then made a common mistake-placing the tiny animal in a tub of water for the night. When finally picked up by the APC, the young platypus was so cold and exhausted that she could barely move. However, with some expert care, she recovered completely and was eventually released back to the wild.

**Magellan** created a "world record" distance for platypus travel. APC surveys in the Wimmera found that this young animal had moved over 45 kilometres in search of a territory to call his own.

For each platypus sponsored you will receive:
* A certificate bearing your name (or name of a person you designate, if intended as a gift), a scanned picture and description of the platypus, and information about the area in which it lives.
* A blank platypus greetings card.

The cost of sponsorship (Aus. $) is as follows:

1 platypus only: $10.00 3 platypus: $25.00
2 platypus: $18.00 All four: $30.00

Sponsorship application forms can be obtained from the APC website or by contacting the Conservancy directly.